No. 200700295

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Syngenta Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOMATO

'Olmeca'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-third day of November, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions* — Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
Syngenta Seeds, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME

3. VARIETY NAME
Olmeca

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
600 North Armstrong Place
Boise, ID 83704

5. TELEPHONE *(include area code)*
208-465-8522

6. FAX *(include area code)*
208-467-4559

FOR OFFICIAL USE ONLY

PVPO NUMBER
#200700295

FILING DATE
May 3, 2007

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

9. DATE OF INCORPORATION
February 25, 1975

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 4,382.00
DATE MAY 3, 2007

CERTIFICATION FEE:
$ 768.00
DATE
10/2/2007

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Kim Briggs
c/o Syngenta Seeds, Inc.
6338 Highway 20-26
Nampa, ID 83687

11. TELEPHONE (Include area code)
208-465-8522

12. FAX (Include area code)
208-467-4559

13. E-MAIL
kim.briggs@syngenta.com

14. CROP KIND *(Common Name)*
Tomato

16. FAMILY NAME *(Botanical)*
Solanacea

15. GENUS AND SPECIES NAME OF CROP
Lycopersicon

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☑ YES ☐ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? ***(OPTIONAL)***
☐ YES ☑ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☑ Exhibit A. Origin and Breeding History of the Variety
b. ☑ Exhibit B. Statement of Distinctness
c. ☑ Exhibit C. Objective Description of Variety
d. ☑ Exhibit D. Additional Description of the Variety *(Optional)* photograph
e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☑ Exhibit F. Declaration Regarding Deposit
g. ☑ Voucher Sample *(3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☑ Filing and Examination Fee ($4,382), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☑ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? 8-15-2006
☑ YES ☐ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*? Please see reverse →
☑ YES ☐ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Kim Briggs			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Kim Briggs			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
PVP Specialist	4-27-07		

(See reverse for instructions and information collection burden statement)

1) Plant Patent - USA
App. Date: 6-8-2005
Reg. No: 2005/0289674 A1

2) Natl. List - European Community
Granted: 4-8-2005
App No: NL14536

3) Natl. List - Netherlands
Granted 12-23-2004
Reg No: 14536

4) PVR - European Community
Granted: 12-12-2005
App. No: 2004/1103 Reg. No. EU16592

5) PVR - Japan
Filed: 5-31-2006 Internal File No: 8211

Olmeca

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for $4,382 ($518 filing fee and $3,864 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice).* **NEW:** With the application for a seed reproduced variety **or by direct deposit soon after filing**, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to **reproduce** the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of $768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

Plant Variety Protection Office
Telephone: (301) 504-5518 **FAX:** (301) 504-5291
General E-mail: PVPOmail@usda.gov
Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

#200700295

SPECIFIC INSTRUCTIONS:
To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

N/a

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

8-15-2006

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

Please see reverse of ST-470. Thank you! ☺

Exhibit A
Origin and Breeding History

OLMECA

Olmeca is a tomato hybrid that shows resistance to several diseases, tolerance to salty soil and is characterized by its distinct brown color. The parents of Olmeca are SENG 9088 (female parent) and SENG 9087 (male parent).

The breeding method was pedigree selection.

Breeding History of Female Parent – SENG 9088

SENG 9088, the female parent of Olmeca, is described in Plant Variety Protection Number 200700293. SENG 9088 is characterized by its good flavor and distinctive brown fruit color. This line is resistant to Fusarium wilt, Verticillum wilt, Root-knot nematode.

Breeding History of Male Parent – SENG 9087

In 1991, in a F2 segregating population of commercial variety, Camone, one mutant plant was observed at maturity with brown fruit color instead of red. This plant was used to create new lines with this special fruit color and good agronomical value.

In January 1998, the mutant for brown color at maturity was planted in the field. This inbred was crossed with the commercial variety Kamonium, which is well known for its attractive color, taste and resistance to Fusarium crown root rot.

The aim was to develop a segregating population with good flavor, resistance to Fusarium crown root rot, and brown fruit color at maturity.

- In August 1999, 150 plants of the F2 coming from this crossing were planted under staked plot number, 9908ALA21345, in our Almeria Syngenta Station under greenhouse environment and 18 plants were selected.
- In January 2000, the 18 F3 selections were planted (25 plants each) under staked plot number, 0004ALP25797.1-0004ALP25797.18 and 23 plants were selected and the seeds collected. The seeds were sent to the pathology department for disease testing in France.
- In August 2000, the F4's were planted (15 plants each) under staked plot number 0007ALA 26261-1-0007ALA26261-23. 10 plants were selected.
- In January 2001, three F5's with resistance to Fusarium crown root rot were planted (10 plants each) and the best two lines were selected.
- In August 2001, the 2 F6's were planted (10 Plants each). Fruits of both lines were sent to the Fruit Quality Service in Almeria for analysis and the line with better flavor was selected. Seeds from this F7 line were sent to the pathology department in France for confirmation of the resistances.
- In January 2002, the F7 was planted under name SENG 9087 with 15 plants and observed for stability. The seeds were harvested and sent to the production department in Holland where they were grown for two cycles and declared stable and uniform.

The main selection criteria were brown fruit at maturity, taste and Fusarium crown root rot resistance.

The variety is uniform and stable within commercially acceptable limits. A small percentage of variants can occur as with other tomato varieties. However no variants were observed during the two years in which the variety was observed to be uniform and stable.

Selection Criteria

The selection criteria used for the development of Olmeca was resistance to Fusarium Crown Root Rot, good flavor, brown ripe fruit and overall good agronomic characteristics.

Stability and Uniformity

The variety `Olmeca' has been evaluated in many different geographical areas including :

Almeria (Spain) years 2002, 2003, 2004 (Spring and fall season each year)
Sardinia (Italy) 2002, 2003 (winter season each year)
Woodland (California) 2004, 2005 (spring season each year).

In all trials, Olmeca has been uniform and stable for all traits mentioned in Exhibit C.

Exhibit B
Statement of Distinctness

OLMECA

Olmeca is a hybrid typically grown in greenhouse conditions for fresh market and is most similar to Black Prince. The main differences are:

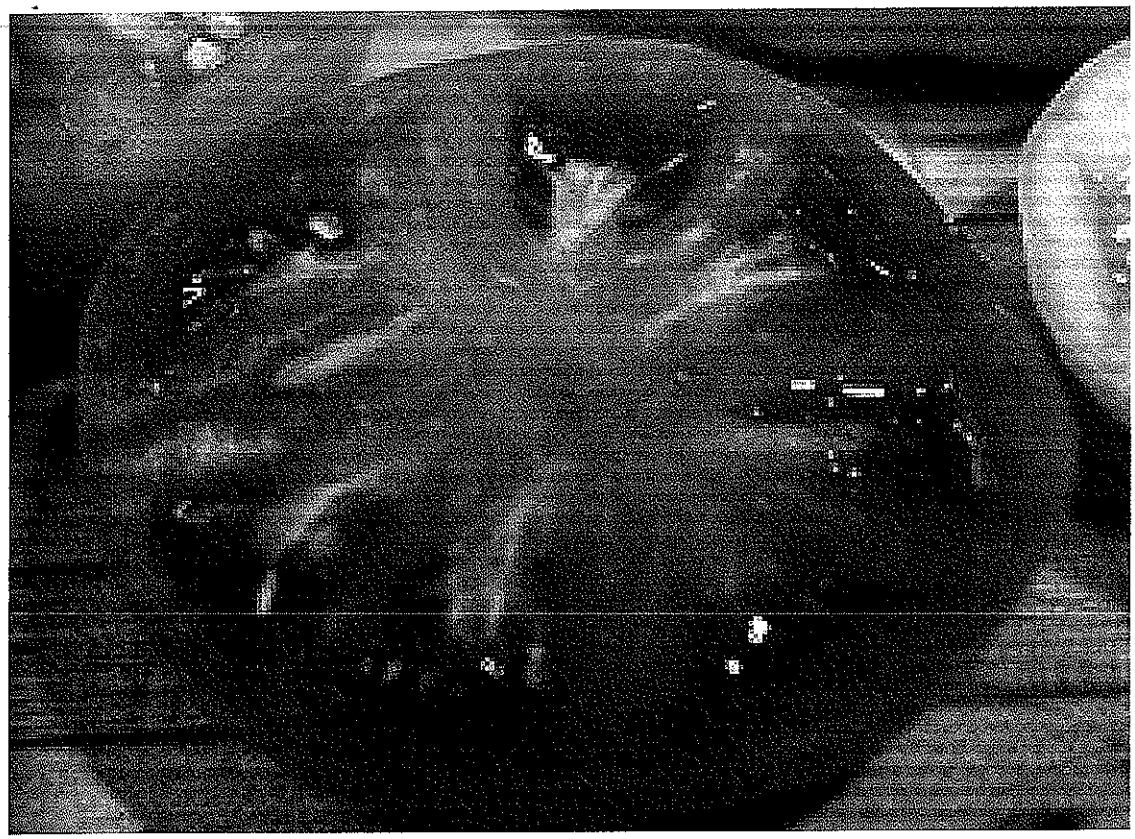
- Olmeca has a darker green external fruit color (RHS136A) at immature fruit stage while Black Prince is much lighter green (RHS139C) at immature fruit stage.
- Olmeca has fruit cracking tolerance while Black Prince has very high cracking susceptibility.
- Olmeca bears a green interior (RHS 137C) at maturity while Black prince has a purplish red interior at maturity (RHS 181A).

Disease Resistances

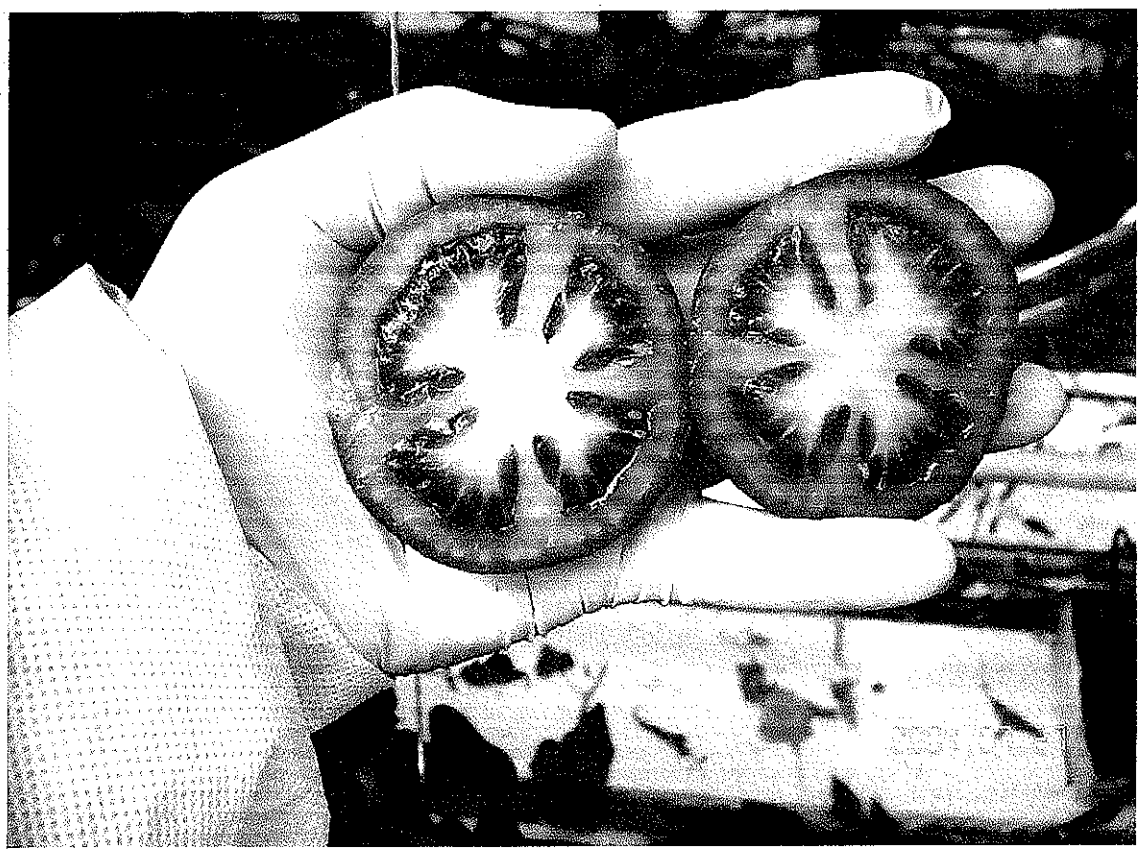
Olmeca is resistant to Fusarium Crown Root Rot, ToMV, Verticillium wilt, Fusarium wilt races 1&2 and root knot nematodes while Black Prince is susceptible to all of these.

Susceptibility test for fusarium crown root rot, tested in France on 3 separate test (November, 2002, April 2003 and October 2003) for varieties Black Prince, and Olmeca. Causal agent *Fusarium oxysporum* f.sp. *radicis-lycopersici*.

Fusarium Crown Root rot (F. oxisporum f.sp. Radici.lycopersici)					
DATE	PLACE	Variety	PLANTS	Susceptible Pl	Resistant Pl
25-Nov-02	France (Sarrians)	Black Prince	18	18	0
25-Nov-02	France (Sarrians)	Olmeca	20	0	20
05-Apr-03	France (Sarrians)	Black Prince	22	22	0
05-Apr-03	France (Sarrians)	Olmeca	20	0	20
15-Oct-03	France (Sarrians)	Black Prince	20	20	0
15-Oct-03	France (Sarrians)	Olmeca	21	0	21



Black Prince at maturity

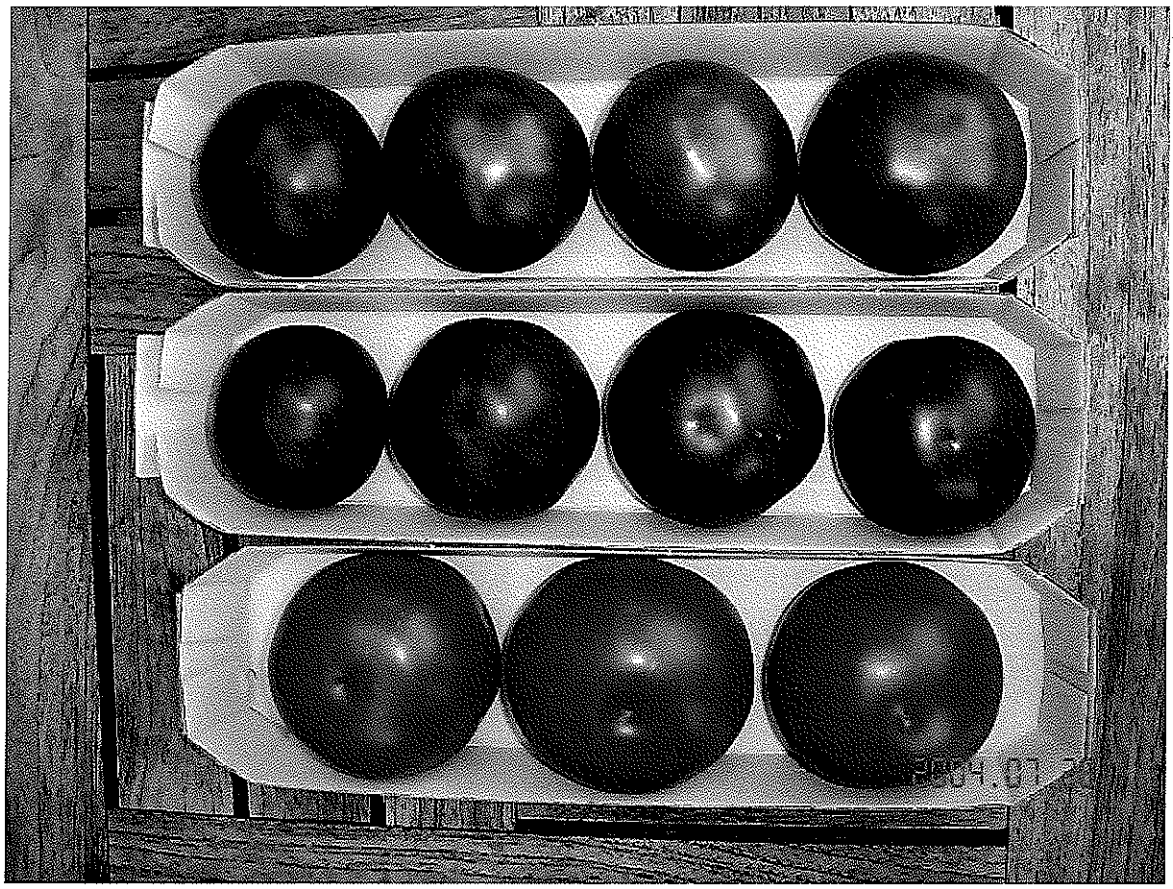


Olmeca at maturity

Exhibit D

Olmeca

Olmeca Interior



Olmeca

1st tray depicts unripe fruit
2nd tray depicts ripe fruit
3rd tray depicts overripe fruit

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
TOMATO (*Lycopersicon esculentum*)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Syngenta Seeds, Inc.		OLMECA
ADDRESS *(Street and No. or RD No., City, State, Zip Code, and Country)*		FOR OFFICIAL USE ONLY
600 North Armstrong Place Boise, Idaho 83704		PVPO NUMBER #200700295

Choose responses for the following characters which best fit your variety. Complete this form as fully as possible for best characterization of the variety. When a single quantitative value is requested (e.g., fruit weight), your answer should be the mean of an adequate-sized, unbiased sample of plants. Use leading zeros when necessary (e.g., 0 9 or 0 8 1, etc.). The applicant variety should be compared with at least one well-known standard check variety of the same type (see list of recommended check varieties below), and grown in the same trials. The characters on this form should be described from plants grown under normal conditions of culture for the variety. Indicated by check whether trial data are from green house ✓ or field ___ planting. Trials direct-seeded ___ or transplanted; staked ✓ or unstaked ___. Give locations and dates of seeding and transplanting here: **Location:Almeria (Spain). Soiwg date:7-ag-06. Planting date:8th-sept-06**

COMPARISONS SHOULD BE MADE TO ONE OR MORE CHECK VARIETIES IN THE FOLLOWING LIST. IF AT ALL POSSIBLE, ENTER THE NUMBER OF THE CHECK IN BOXES WHERE IDENTITY OF CHECK IS REQUESTED.

1 = Ace 55 VF	7 = Homestead 24	13 = Red Rock	19 = VF 134
2 = Campbell 37	8 = Marglobe	14 = Roma VF	20 = US 28
3 = Chico III	9 = Murietta	15 = Rutgers	21 = VF 145 B 7879
4 = Flora Dade	10 = New Yorker	16 = Sunray	22 = Other (Specify) **Daniela**
5 = Florida MH-1	11 = Ohio MR-13	17 = Tropic	23 = Other (Specify) ___
6 = Heinz 1350	12 = Red Cherry Large	18 = UC 82	24 = Other (specify) ___

1. SEEDLING

__1__ Anthocyanin in hypocotyl of 2 – 15 cm seedling: 1 = Absent 2 = Present

__1__ Habit of 3 – 4 week old seedling: 1 = Normal 2 = Compact

2. MATURE PLANT (at maximum vegetative development)

__2__ __9__ __5__ cm Height

__1__ Growth: 1 = Indeterminate 2 = Determinate

__2__ Form: 1 = Lax, open 2 = Normal 3 = Compact 4 = Dwarf 5 = Brachytic

__2__ Size of canopy (compared to others of similar type): 1 = Small 2 = Medium 3 = Large

__1__ Habit: 1 = Sprawling (decumbent) 2 = Semi-Erect 3 = Erect ('Dwarf Champion')

#200700295

3. STEM

2 Branching: 1 = Sparse ('Brehm's Solid Red', 'Fireball') 2 = Intermediate ('Westover') 3 = Profuse ('UC 82')

1 Branching at cotyledonary or first leafy node: 1 = Present 2 = Absent

1 No. of nodes between first inflorescences: 1 = 1–4 2 = 4–7 3 = 7–10 4 = 10 or more

3 No. of nodes between early (1st – 2nd, 2nd – 3rd) inflorescences. 3 No. of nodes between later developing inflorescences.

2 Pubescence on younger stems: 1 = Smooth (no long hairs) 2 = Sparsely hairy (scattered long hairs) 3 = Moderately hairy 4 = Densely hairy or wooly

4. LEAF (mature leaf beneath the 3rd inflorescences)

1 Type: 1 = Tomato 2 = Potato ('Trip-L-Crop') 1 Morphology (choose illustration at the end of this form that is most similar)

1 Margins of major leaflets: 1 = Nearly entire 2 = Shallowly toothed or scalloped 3 = Deeply toothed or cut, sps. Toward base

2 Marginal rolling or wiltiness: 1 = Absent 2 = Slight 3 = Moderate 4 = Strong

3 Onset of leaflet rolling: 1 = Early-Season 2 = Mid-Season 3 = Late Season

1 Surface of major leaflets: 1 = Smooth 2 = Rugose (bumpy or veiny)

1 Pubescence: 1 = Smooth (no long hairs) 2 = Normal 3 = Hirsute 4 = Wooly

5. INFLORESCENCE (make observations on 3rd inflorescence)

1 Type: 1 = Simple 2 = Forked (2 major axes) 3 = Compound (much branched)

0 8 Number of flowers in inflorescence. Average

2 Leafy or "running" inflorescences: 1 = Absent 2 = Occasional 3 = Frequent

6. FLOWER

1 Calyx: 1 = Normal, lobes awl-shaped 2 = Macrocalyx, lobes large, leaflike 3 = Fleshy

3 Calyx-lobes: 1 = Shorter then corolla 2 = Approx. equalling corolla 3 = Distinctly longer than corolla

1 Corolla color: 1 = Yellow 2 = Old Gold 3 = White or Tan

2 Style pubescence: 1 = Absent 2 = Sparse 3 = Dense

1 Anthers: 1 = All fused into tube 2 = Separateing into 2 or more groups at anthesis

1 Fasciation (1st flower of 2nd or 3rd inflorescence): 1 = Absent 2 = Occasionally present 3 = Frequently present

7. FRUIT (3rd fruit of 2nd or 3rd cluster) For the first 5 characters below, match your variety with the most similar illustration on pages at the end of this form.

3 Typical fruit shape 1 Shape of transverse section 1 Shape of stem end

1 Shape of blossom end 1 Shape of pistil scar

1 Abscission layer: 1 = Present (pedicellate) 2 = Absent (jointless)

1 Point of detachment of fruit at harvest: 1 = At pedicel joint 2 = At calyx attachment

1 1 mm Length of dedicel (from joint to calyx attachment)

0 5 5 mm Length of mature fruit (stem axis) 0 5 3 mm Length, check var. no. 2 2

0 5 3 mm Diameter of fruit at widest point 0 6 6 mm Diameter, check var. no. 2 2

1 0 0 g Weight of mature fruit 1 4 0 g Weight, check var. no. 2 2

2 No. of locules: 1 = Two 2 = Three and four 3 = Five or more

1 Fruit surface: 1 = Smooth 2 = Slight ly rough 3 = Moderately rough or ribbed

3 Fruit base color (mature-green stage):
1 = Light Green ('Lanai', 'VF 145-F5') 2 = Light Gray-Green 3 = Apple or Medium Green ('Heinz 1439 VF') 4 = Yellow Green 5 = Dark Green

2 Fruit Pattern (mature-green stage): 1 = Uniform Green 2 = Green-Shouldered 3 = Radial Stripes on Sdes of Fruit

#200700295

7. **FRUIT** (continued)

1 Shoulder color if different from base: 1 = Dark Green 2 = Grey Green 3 = Yellow Green

6 Fruit color, full-ripe: 1 = White 2 = Yellow 3 = Orange 4 = Pink 5 = Red 6 = Brownish 7 = Greenish 8 = Other (specify) _____

5 Flesh color, full-ripe: 1 = Yellow 2 = Pink 3 = Red/Crimson 4 = Orange 5 = Other (specify) ~~brownish~~ Greenish per correspondance Sept 24, 2007 LMC 9-24-2007

2 Flesh color: 1 = Uniform 2 = With lighter and darker areas in walls

1 Locular gel color of table-ripe fruit: 1 = Green 2 = Yellow 3 = Red

1 Ripening: 1 = Blossom-to-stem end 2 = Uniform

2 Ripening: 1 = Inside out 2 = Uniformly 3 = Outside in

1 Stem scar size: 1 = Small ('Roma') 2 = Medium ('Rutgers') 3 = Large

1 Core: 1 = Coreless (absent or smaller than 6x6 mm) 2 = Present

2 Epidermis color: 1 = Colorless 2 = Yellow

1 Epidermis: 1 = Normal 2 = Easy-peel

2 Epidermis texture: 1 = Tender 2 = Average 3 = Tough

7 Thickness of pericarp 8.6 Thickness of pericarp. Check var. no. 2 2

2 Anthocyanin in hypocotyl of 2 – 15 mc seedling: 1 = Absent 2 = Present 1 Habit of 3 – 4 week old seedling: 1 = Normal 2 = Compact

8. **RESISTANCE TO FRUIT DISORDER** (Use code: 0 = Unknown 1 = Susceptible 2 = Resistant)

2 Blossom end rot	2 Catface	2 Fruit pox	2 Zippering
2 Blotchy ripening	1 Cracking, concentric	2 Gold fleck	___ Other (specify) _____
2 Bursting	2 Cracking, radial	2 Graywall	

9. **DISEASE AND PEST REACTION** (Use code: 0 = Unknown 1 = Susceptible 2 = Resistant) NOTE: If claim of novelty is based wholly or in substantial part upon disease resistance, trial data should be appended. These should specify the method of testing, the reaction of the application variety, and reaction of well-known check varieties grown in the trial (identified by name).

Viral Diseases:

___ Cucumber mosaic	2 Tobacco mosaic, Race 0	2 Tobacco mosaic, Race2[2]
___ Curly top	2 Tobacco mosaic, Race 1	___ Tomato spotted wilt
___ Potato-Y virus	2 Tobacco mosaic, Race 2	___ Tomato yellows
___ Blotchy ripening	___ Cracking, concentric	___ Gold fleck

___ Other virus (specify) _____

Bacterial Diseases:

___ Bacterial canker (*Corynebacterium miciganense*)	___ Bacterial spot (*Xanthomonas vesicatorium*)
___ Bacterial soft rot (*Erwinia corotovora*)	___ Bacterial wilt (*Pseudomonas solanacearum*)
___ Bacterial speck (*Pseudomonas tomato*)	___ Other bacterial disease (specify) _____

Fungal Diseases:

___ Anthracnose (*Colletotrichum* spp.)	___ Leaf mold, Race 1 (*Cladosporium fulvum*)
___ Brown root rot or corky root (*Pyrenochaeta lycopersici*)	___ Leaf mold, Race 2
___ Collar rot or stem canker (*Alternaria solani*)	___ Leaf mold, Race 3
___ Early blight defoliation (*Alternaria solani*)	___ Leaf mold, other races (specify) _____
2 Fusarium wilt, Race 1 (*F. oxysporum f. lycopersici*)	___ Nailhead spot (*Alternaria tomato*)
2 Fusarium wilt, Race 2	___ Seporia leafspot (*S. lycopersici*)
___ Fusarium wilt, Race 3	___ Target leafspot (*Corynespora casiicola*)

#200700295

9. DISEASE AND PEST REACTION (continued)

Fungal Diseases:

___ Gray leaf spot (*Stemphylium spp.*)
___ Late blight, Race 0 (*Phytophthora infestans*)
___ Late blight, Race 1
__2__ Verticillium wilt, Race 1 (*V. albo-atrum*)
___ Verticillium wilt Race 2
__2__ Other fungal disease (specify) **Fusarium crown root rot**

Insects and Pests:

___ Colorado potato beetle (*Leptinotarsa decemlineata*)
__2__ Southern root knot nematode (*Meloidogyne incognita*)
___ Spider mites (*Tetranychus* spp.)
___ Sugar beet army worm (*Spodoptera exigual*)
___ Tobacco flea beetle (*Epitrix hirtipennis*)
___ Tomato hornworm (*Manduca quinquemaculata*)
___ Tomato fruitworm (*Heliothis zea*)
___ Whitefly (*Trialeurodes vaporariorum*)
___ Other (specify) _____

Pollutants:

___ Ozone ___ Sulfur dioxide ___ Other (specify) _____

10. CHEMISTRY AND COMPOSITION OF FULL-RIPE FRUITS Suggested test methods may be found in "Tomato Products", 5th ed., National Canners Assn. Bull. 27-L. Please specify test methods or give a reference to methods used. Fill in table below with values for the new variety and for at lease one well-known check variety of similar type grown in the same trial. Specify names or numbers of check varieties.

	Submitted Variety	Check Variety _____	Check Variety _____	Check Variety _____
pH				
Titratable acidity, as % citric				
Total solids (dry matter, seeds and skin removed)				
Soluble solids as °Brix				

11. PHENOLOGY Express length of developmental stages either as calendar days or as heat units (growing degree days), in degrees Celsius. If heat units are used, indicate the base temperature used in their calculatoin hear _____°C. See paper by Warnock under "References" for method. Give comparative data for at least one check variety; identify checks by name or by number from table on page 1.

	Application Variety	Check Variety _____	Check Variety _____	Check Variety _____
Seeding to 50% flow (1 open on 50% of plants)				
Seed to once over harvest (if applicable)				

__1__ Fruiting season: 1 = Long ('Marglobe) 2 = Medium ('Westover') 3 = Short, concentrated ('VF 145') 4 = Very concentrated ('UC 82')

__3__ Relative maturity in areas tested: 1 = Early 2 = Medium early 3 = Medium 4 = Medium late 5 = Late 6 = Variable
(If relative maturity is known to differ by location or environment, please explain on separate sheet)

12. ADAPTATION If more than one category applies, list all in rank order.

__2__ Culture: 1 = Field 2 = Greenhouse

___ ___ ___ __2__ Principle use(s): 1 = Home garden 2 = Fresh market 3 = Whole-pack canning 4 = Concentrated products
5 = Other (specify) _____

__1__ Machine harvest: 1 = Not adapted 2 = Adapted

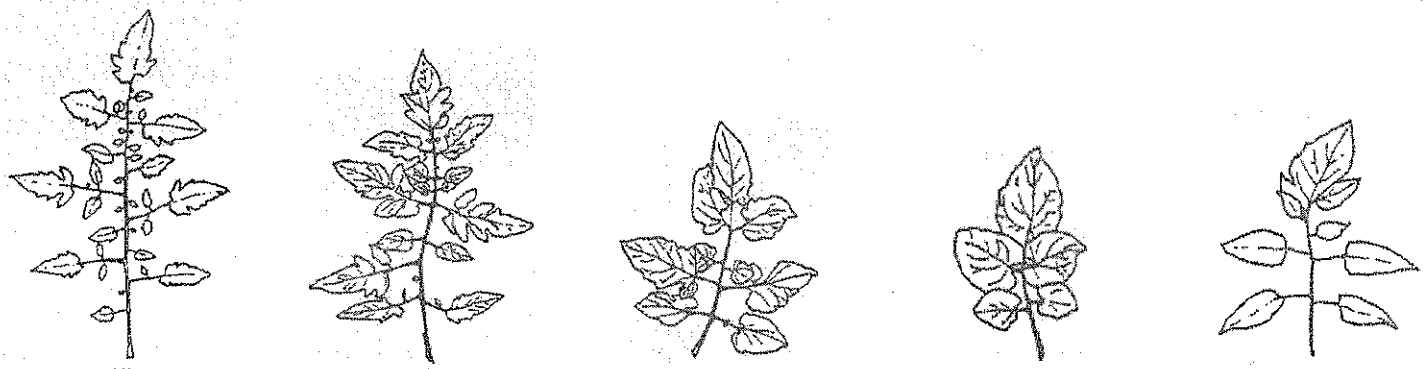
___ ___ __1__ __0__ Regions to which adaptation has been demonstrated:
1 = Northeast 2 = Mid Atlantic 3 = Southeast 4 = Florida 5 = Great Plains
6 = South-central 7 = Intermountain West 8 = Northwest 9 = California: Sacramento and Upper San Joaquin Valley
10 = California: Coastal Areas 11 = California: Southern San Joaquin Valley & Deserts

ILLUSTRATIONS OF TOMATO LEAF AND FRUIT CHARACTERISTICS

#200700295

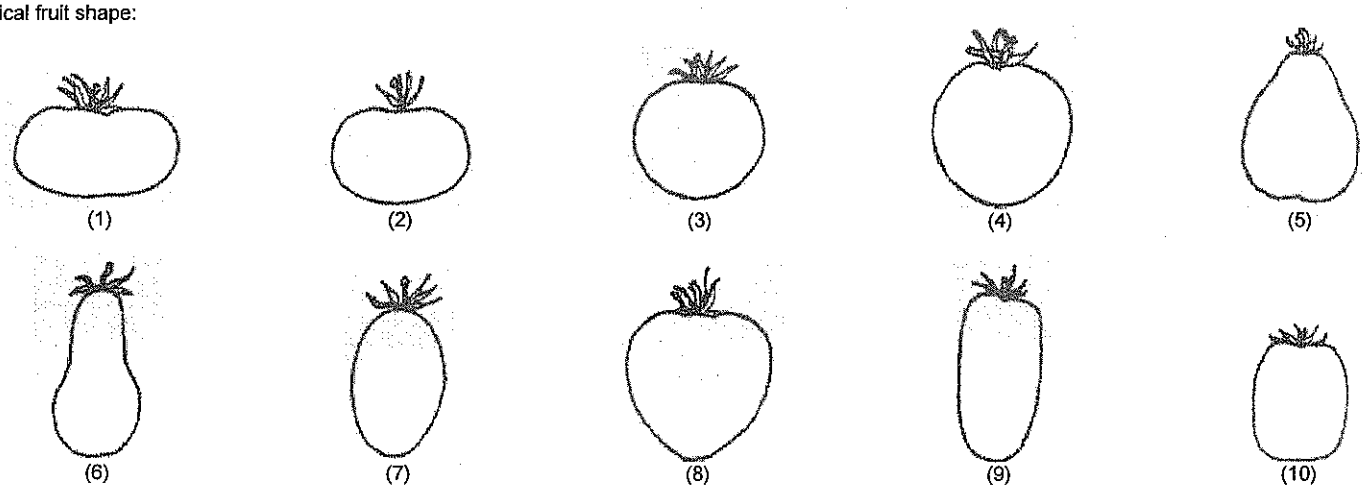
4. LEAF

Morphology:



7. FRUIT

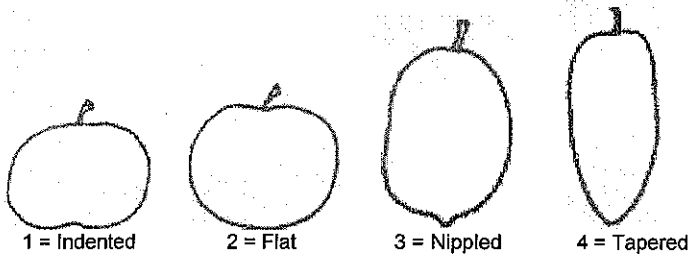
Typical fruit shape:



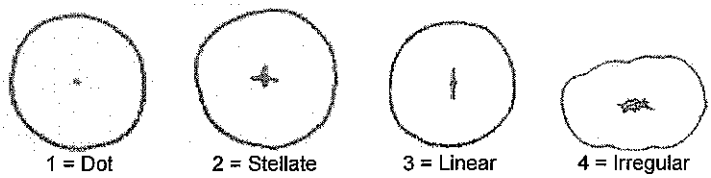
Shape of transverse section:

Shape of stem end:

Shape of blossom end:



Shape of pistil scar:



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Ware, G.W. & J.P. McCollum, 1968. Producing Vegetable Crops. The Interstate Printer & Publishers, Inc., Danville, Illinois. Chapter 30, pp. 451-473, "Tomatoes".

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Syngenta Seeds, Inc.		Olmeca
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
600 North Armstrong Place Boise, ID 83704	(208) 465-8522	(208) 467-4559
	7. PVPO NUMBER #200700295	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ **YES** ☐ **NO**

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ **YES** ☐ **NO**

10. Is the applicant the original owner? ☑ **YES** ☐ **NO** **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ **YES** ☐ **NO** **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ **YES** ☐ **NO** **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

Olmeca was bred and developed by plant breeders employed by Syngenta Seeds, Inc. By agreement between the employee and Syngenta Seeds, Inc., all rights to any invention, discovery or development made by the employee while employed by Syngenta Seeds were assigned to Syngenta Seeds, Inc., with no rights retained by the employee.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Syngenta Seeds, Inc.	600 North Armstrong Place Boise, ID 83704	VARIETY NAME Olmeca
NAME OF OWNER REPRESENTATIVE (S)	**ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)***	FOR OFFICIAL USE ONLY
Kim Briggs	6338 Highway 20-26 Nampa, ID 83687	PVPO NUMBER #200700295

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Kim Briggs
Signature

4-18-2007
Date